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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,591	05/24/2001	Jeffrey R. Bernhardt	4254 15-849	2124

7590

01/02/2004

WATTS, HOFFMANN, FISHER & HEINKE CO., L.P.A.  
Ste. 1750  
1100 Superior Ave.  
Cleveland, OH 44114

EXAMINER

WONG, LESLIE

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/864,591

Applicant(s)

BERNHARDT ET AL.

Examiner

Leslie Wong

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 3, 5-8, 10, 12, and, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bossemeyer, Jr. et al.** (U.S. Patent 6,510,427 B1) in view of **Choy** (U.S. Patent 5,960,431).

Regarding claims 1 and 10, **Bossemeyer, Jr. et al.** teaches a method and computer readable medium of identifying a subset of records within a database for purposes of representing said database comprising:

Art Unit: 2177

a). choosing a selection attribute from one of a plurality of attributes contained in records within the database (col. 5, lines 43-46).

b). scanning records in the database (col. 6, lines 13-19)

c). applying a selection criteria to identify records for inclusion within a subset of records by comparing the record value of each record within the selection criteria (col. 6, lines 13-24)

b). **Bossemeier, Jr. et al.** does not explicitly teach a step of **applying a randomizing function** to the selection attribute of each record to create a randomized record value.

**Choy**, however, teaches a step of applying a randomizing function to the selection attribute of each record to create a randomized record value (col. 1, lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because **Choy's** randomizing function on one or more data fields would have allowed **Bossemeier, Jr. et al.'s** to quickly select records to be included in the sample set that are evenly distributed across the database, thus the sample data would represent the entire database in a more accurate manner.

c). **Bossemeier, Jr. et al.** does not explicitly teach a step of **comparing the randomized record value** of each record within the selection criteria.

**Choy**, however, teaches a step of generating the randomized value of each record (col. 1, lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because **Choy's** generating the randomized value for each record would have allowed **Bossemeier, Jr. et al.'s** to quickly compare records in the database to determine if they met the selection criteria, thus it would reduce the search time to locate the records to be included in the sample set.

Regarding claims 3 and 12, **Bossemeier, Jr. et al.** further teaches wherein the selection attribute contains a text string that is used as an input parameter to the randomizing function (i.e., comment field) (col. 5, lines 23-35).

Regarding claims 5, 6, 8, 14, and 15, **Bossemeier, Jr. et al.** implicitly teaches wherein subset of records that represent the database are transmitted from a server computer to a client computer by means of network (col. 5, lines 5-8; col. 6, lines 5-7 and abstract).

**Bossemeier, Jr. et al.** does not explicitly teach said server computer including **instructions for sending a dataset** made up of a subset of the records in the database to a client computer via the network.

Although, **Bossemeyer, Jr. et al.** does not explicitly disclose that server computer including instructions for sending a dataset made up of a subset of the records in the database to a client computer via the network, it should be understood that in the client/server arrangement, the client generally performs a request for the data and the server processes that request and returns the data to the client.

Regarding claim 7, **Bossemeyer, Jr. et al.** further teaches a client/server computer apparatus comprising:

- a). one or more client computers coupled to a network and including communications instructions for requesting a data set by means of the network (Fig. 1, lines ).
- b). a server computer coupled to the network and having access to a database having a number of records (col. 5, lines 5-8; col. 6, lines 5-7 and abstract).

**Bossemeyer, Jr. et al.** does not explicitly teach said server computer including **instructions for sending a dataset** made up of a subset of the records in the database to a client computer via the network.

Although, **Bossemeyer, Jr. et al.** does not explicitly disclose that server computer including instructions for sending a dataset made up of a subset of the records in the database to a client computer via the network, it should be understood that in the client/server arrangement, the client generally performs a request for the data and the server processes that request and returns the data to the client.

c). **Bossemeyer, Jr. et al.** teaches said server computer including instructions for scanning records the database (col. 6, lines 13-19), and comparing the record value with a selection criteria to determine whether to include a record in the subset of records from the database for transmission via the network to the client (col. 6, lines 13-24).

**Bossemeyer, Jr. et al.** does not explicitly teach a step of applying a randomizing function to a specified record attribute of each record in the database to produce a randomized record value.

**Choy**, however, teaches a step of applying a randomizing function to a specified record attribute of each record in the database to produce a randomized record value (col. 1, lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because **Choy's** randomizing function on one or more data fields would have allowed **Bossemeyer, Jr. et al.'s** to select records to be included in the sample set to be evenly distributed across the database, thus the sample data would have represented the whole database in a more accurate manner.

c). **Bossemeyer, Jr. et al.** does not explicitly teach a step of **comparing** the **randomized record value** of each record within the selection criteria.

**Choy**, however, teaches a step of generating the randomized value of each record (col. 1, lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because **Choy's** generating the randomized value for each record would have allowed **Bossemeyer, Jr. et al.'s** to quickly identify records that are met the selection criteria, thus it would reduce the search time to locate the record in the database to be included in the sample set.

3. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bossemeyer, Jr. et al.** (U.S. Patent 6,510,427 B1) in view of **Choy** (U.S. Patent 5,960,431) as applied to claims 1, 3, 5-8, 10,12, and, 14-15 above and further in view of **Fayyad et al.** (U.S. Patent 6,012,058).

Regarding claims 2 and 11, **Bossemeyer, Jr. et al.** and **Choy** teach wherein the selection attribute contains a numeric value (i.e., product code) (col. 5, lines 59-63).

**Bossemeyer, Jr. et al.** and **Choy** do not clearly teach wherein additionally comprising **scaling the numeric value with a factor** before applying the randomizing function.

**Fayyad et al.**, however, teaches wherein the selection attribute contains a numeric value and additionally comprising scaling the numeric value with a factor before applying the randomizing function (col. 13, lines 5-23).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because



**Fayyad et al.**'s scaling numeric value would have allowed **Bossemeyer, Jr. et al.**'s in combination with **Choy's** to specify the number of records from the database to be included in the sample set.

4. Claims 4, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bossemeyer, Jr. et al.** (U.S. Patent 6,510,427 B1) in view of **Choy** (U.S. Patent 5,960,431) as applied to claims 1, 3, 5-8, 10,12, and, 14-15 above and further in view of **Wass et al.** (Counting, Enumerating, and Sampling of Execution Plans in a Cost-Based Query Optimizer).

Regarding claims 4, 9, and 13, **Bossemeyer, Jr. et al.** and **Choy** do not clearly teach wherein the scanning of records and applying the selection criteria is implemented by an SQL statement that includes a randomizing function.

**Wass et al.**, however, teaches wherein the scanning of records and applying the selection criteria is implemented by an SQL statement that includes a randomizing function (abstract lines 1-3 and pg. 499, right column, third paragraph).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the teaching of the cited references because **Wass et al.**'s generation of random SQL statements would have allowed **Bossemeyer, Jr. et al.**'s in combination with **Choy's** to quickly generate random statements to be tested.

**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brown et al. (U.S. Patent 6,026,398)

Bloedorn (US 2002/0152208 A1)

Fayyad et al. (U.S. Patent 6,633,882 B1)

Aggarwal et al. (U.S. Patent 6,236,985)

Gilbert et al. (US 2002/0073138 A1)

Motwani et al. (Randomized Algorithms)

Karloff et al. (Randomized Algorithms and Pseudorandom Numbers)

Ordonez (SQLEM: Fast Clustering in SQL using the EM Algorithm)

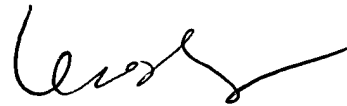
Snyder (Using Transact-SQL and Simulation Techniques to Create Virtual  
M&M's)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (703) 305-3018. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

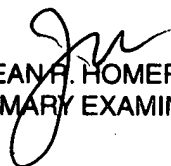
Art Unit: 2177

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Leslie Wong  
Patent Examiner  
Art Unit 2177

lw  
22 December 2003



JEAN-F. HOMERE  
PRIMARY EXAMINER